

Applic. No. 10/828,813
Amdt. dated April 26, 2006
Reply to Office action of March 3, 2006

Claim Amendments

This listing of the claims will replace all prior versions,
and listings, of claims in the application:

Claim 1 (currently amended): A heat-resistant filter layer,
comprising:

a fiber material being at least partially pervious to a fluid;

at least one filter section incorporating said fiber material;
and

at least one boundary region extending from said filter
section, said boundary region having a first layer thickness
being ~~different~~ less than a second layer thickness of said
filter section, and said boundary region containing a
compressed or compacted fiber assembly.

Claim 2 (cancelled).

Claim 3 (original): The heat-resistant filter layer according
to claim 1, wherein said boundary region, starting from an

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edge of the filter layer, has a boundary width of at most 30 mm.

Claim 4 (currently amended): The heat-resistant filter layer according to claim 1, wherein said filter section has at least one fiber layer formed of said fiber material and said fiber layer has a fiber layer thickness of at most 3 mm.

Claim 5 (original): The heat-resistant filter layer according to claim 4, further comprising at least one metal layer delimiting the filter layer on an outside and has a metal-layer thickness of at most 0.05 mm.

Claim 6 (currently amended): The heat-resistant filter layer according to claim 1, further comprising a sandwich structure containing at least one fiber layer formed of said fiber material and at least one metal layer.

Claim 7 (original): The heat-resistant filter layer according to claim 1, wherein said first layer thickness is less than 60% of said second layer thickness.

Claim 8 (original): The heat-resistant filter layer according to claim 1, wherein said first layer thickness is less than 50% of said second layer thickness.

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Claim 9 (original): The heat-resistant filter layer according to claim 1, wherein said first layer thickness is less than 35% of said second layer thickness.

Claim 10 (original): The heat-resistant filter layer according to claim 1, wherein said boundary region, starting from an edge of the filter layer, has a boundary width of at most 20 mm.

Claim 11 (original): The heat-resistant filter layer according to claim 1, wherein said boundary region, starting from an edge of the filter layer, has a boundary width of at most 10 mm.

Claim 12 (original): The heat-resistant filter layer according to claim 1, wherein said boundary region, starting from an edge of the filter layer, has a boundary width of at most 5 mm.

Claim 13 (currently amended): The heat-resistant filter layer according to claim 1, wherein said filter section has at least one fiber layer formed of said fiber material and said fiber layer has a fiber layer thickness of at most 1 mm.

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Claim 14 (currently amended): The heat-resistant filter layer according to claim 1, wherein said filter section has at least one fiber layer formed of said fiber material and said fiber layer has a fiber layer thickness of at most .5 mm.

Claim 15 (original): The heat-resistant filter layer according to claim 4, further comprising at least one metal layer delimiting the filter layer on an outside and has a metal-layer thickness of at most 0.03 mm.

Claim 16 (original): The heat-resistant filter layer according to claim 4, further comprising at least one metal layer delimiting the filter layer on an outside and has a metal-layer thickness of at most 0.015 mm.

Claim 17 (currently amended): A filter body for purifying exhaust gases from an internal combustion engine, the filter body comprising:

at least partially structured layers being at least one of stacked and wound to form passages through which the exhaust gases can flow, said layers including at least one heat-resistant filter layer, said heat-resistant filter layer comprising:

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a fiber material being at least partially pervious to a fluid;

at least one filter section incorporating said fiber material; and

at least one boundary region extending from said filter section, said boundary region having a first layer thickness being ~~different~~ less than a second layer thickness of said filter section, and said boundary region containing a compressed or compacted fiber assembly.

Claim 18 (original): The filter body according to claim 17, wherein said layers include at least one structured sheet-metal foil and said filter layer being a substantially smooth filter layer, said layers connected to one another by brazing or welding, in at least one connecting section.

Claim 19 (original): The filter body according to claim 18, wherein said connecting section is disposed in said boundary region of said filter layer.

Claim 20 (original): The filter body according to claim 18, further comprising means (17, 18, 19, 20, 21, 23) for

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compensating for differences in the first and second layer
thicknesses of said filter layer.

Claim 21 (currently amended): The filter body according to
claim 20, wherein ~~said first layer thickness of said boundary
region is less than said second layer thickness,~~ said boundary
region ~~having~~ has a deformation region which at least
partially overlaps itself and is brazened together.

Claim 22 (currently amended): The filter body according to
claim 20, wherein ~~said first layer thickness of said boundary
region is less than said second layer thickness,~~ said
structured sheet-metal foil has a zone disposed adjacent to
said boundary region and a remaining zone, said zone of said
structured sheet-metal foil has a greater height than a
remaining zone of said structured sheet-metal foil.

Claim 23 (original): The filter body according to claim 22,
wherein said zone of said structured sheet-metal foil has
structures with a structure height being greater than
structures of said structured sheet-metal foil in said
remaining zone, a material thickness of said structured sheet-
metal foil being equal in said zone and said remaining zone.

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Claim 24 (original): The filter body according to claim 17, further comprising at least one additional compensation layer disposed adjacent to said boundary region of said filter layer.

Claim 25 (withdrawn-currently amended): A process for producing a filter body, which comprises the steps of:

producing at least one heat-resistant filter layer according to claim 1;

forming, in the filter layer, at least one boundary region, the boundary region having a reduced layer thickness in comparison to remaining parts of the filter layer;

providing means for compensating for different layer thicknesses of the filter layer;

stacking and/or winding the filter layer and at least one structured sheet-metal foil to form a honeycomb body having passages formed therein through which an exhaust gas can flow;

supplying a brazing material in at least one connecting section between the filter layer and the structured sheet-metal foil; and

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heating the honeycomb body to form brazing joints in the connecting section.

Claim 26 (withdrawn): The process according to claim 25, which further comprises:

introducing the honeycomb body into a casing before the brazing material is supplied, and while the brazing material is being supplied, disposing the casing in at least one attachment region for attaching at least one of the filter layer and the structured sheet-metal foil to the casing, so that brazing joints are generated during heating in the attachment region.

Claim 27 (withdrawn): The process according to claim 25, which further comprises:

forming the boundary region having the reduced layer thickness by applying a compressive force to the filter layer in the boundary region.

Claim 28 (withdrawn): The process according to claim 27, which further comprises producing the means for compensating by deforming the boundary region.

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Claim 29 (withdrawn): The process according to claim 25,
which further comprises producing the means for compensating
by disposing at least one compensation layer between the
filter layer and the structured sheet-metal foil.

Claim 30 (previously presented): The filter body according to
claim 17, wherein said passages are alternately closed off.